

ABSTRACT

This invention is for improving filling properties between vertical MISFETs constituting a SRAM memory cell. Upon formation of vertical MISFETs over horizontal drive MISFETs and transfer MISFETs, they are disposed with a narrow pitch in the Y direction and a wide pitch in the X direction. After a first insulating film (O_3 -TEOS) having good coverage is disposed over a columnar laminates having a lower semiconductor layer, an intermediate semiconductor layer, an upper semiconductor layer and a silicon nitride film and a gate electrode formed over the side walls of the laminates via a gate insulating film to completely fill a narrow pitch space, a second insulating film (HDP silicon oxide film) is deposited over the first insulating film, resulting in an improvement in the filling properties even in a narrow pitch portion between the vertical MISFETs having a high aspect ratio.